

Bighorn Sheep (*Ovis canadensis*) abound in the mountain ranges of Mojave National Preserve.

Fallen Giant: “World’s ^{Longest} ~~Tallest~~ Yucca”

A MOJAVE DESERT GIANT HAS FALLEN. KNOWN LOCALLY AS the “World’s Tallest Yucca,” the 31-foot tall Mojave yucca (*Yucca schidigera*) stood sentinel near Hole-in-the-Wall in Mojave National Preserve. While Mojave yuccas normally grow up to 15 feet in height, this living monument was easily twice as tall as its very tall neighbors.

In the mid-1980s, a volunteer couple from Sweden discovered the unusual yucca while scouting a route for the Mid Hills to Hole-in-the-Wall Trail. At the time, the area was managed by the Bureau of Land Management (BLM), Needles Field Office. BLM Planner George Meckfessel and Ecologist Roger Alexander measured the Mojave yucca and nominated it for the National Register of Big Trees in 1987, listing it as 27 feet tall. Measured again in 2004 by volunteers Brian and Jenny Phillips, it was found to be 31 feet tall—the plant may have grown four feet in 17 years.

Reports of the fallen giant were first received in spring 2008. During a recent visit to the site, I walked the length of the giant’s trunk and searched the area for another “Tallest Yucca” candidate. The tallest specimen I saw appeared to be about fifteen feet—a good size, but not even close to the old record. Remote mountain ranges are scattered across the Mojave. Perhaps a wash or canyon in one of these infrequently visited mountains harbors our next champion!

Linda Slater, Chief of Interpretation

Established in 1940, the National Register of Big Trees is maintained by American Forests, a nonprofit conservation organization. Using a simple method for comparing tree sizes, anyone can measure and nominate a tree for champion status. Search the online registry for yourself at www.americanforests.org—there just might be a giant living in your neighborhood!



Above: A visitor poses with “The World’s Tallest Yucca” in early spring 2008.

Left: The fallen giant as seen today: “World’s Longest Yucca?”

Welcome to Mojave!

Cooler temperatures make fall and winter a wonderful time to visit the Mojave Desert, and the softening light as the sun passes lower in the sky offers a bolder, warmer palette for desert photographers. We’re currently featuring the second in our series of art and photography exhibitions at the Desert Fine Art Gallery in the Kelso Depot Visitor Center. Featuring both professional and regional art and nature photographers, these exhibits run for two to three months, so stop in often to see what’s new.

Mojave’s landscape varies tremendously as you travel around the preserve, and I encourage you to take short walks in various areas. Inside this guide, you’ll find information on how to visit the Kelso Dunes, Cinder Cones Lava Beds, and the Joshua tree woodland on Cima Dome. On the east side of the park, campgrounds, hiking trails, and cave tours are all available for those who have more time to explore.

Thousands of miles of dirt roads await desert explorers in street-legal vehicles, providing access to old mining sites, springs, and roadside camps. Some routes require high-clearance vehicles and/or four-wheel drive, and road conditions change rapidly during rainy weather, so check with a ranger before heading out.

If you would like to learn more about what to see and do, talk to the rangers at Kelso Depot Visitor Center or Hole-in-the-Wall Information Center, visit our website, or call the headquarters information desk. Websites and phone numbers are listed on page two.

Dennis Schramm

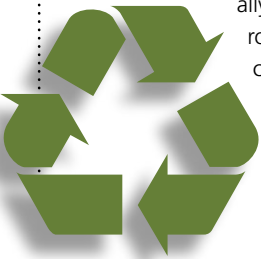
Dennis Schramm
Superintendent

3 Mojave’s Roads

Just getting around Mojave National Preserve, the third largest unit of the National Park System in the contiguous United States, can be a trial for some. But it need not be. Plan ahead and prioritize; familiarize yourself with Mojave’s paved and dirt roads and the major sites to see along the way. And remember—you’ll never see it all in one day (but you can always come back)...

4 Greening Mojave

National parklands are ideal locations for showcasing sustainable environmental practices. Mojave National Preserve has been nationally recognized for its environmental leadership and commitment to a greener future—not just for visitors, but for everyone around the globe...



6 Campgrounds

Mojave National Preserve is a camper’s paradise. Developed campgrounds, roadside camping, and backcountry camping offer opportunities for individuals and groups of diverse ages, interests, and skills. Careful planning and knowledge of camping rules and regulations will help ensure an enjoyable and safe experience for you, future visitors, and the fragile desert environment...

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National Park Service
U.S. Department of the Interior

Mojave National Preserve

Established in 1994, Mojave National Preserve encompasses 1.6 million acres ranging in elevation from 800’ near Baker to 7,929’ at Clark Mountain. Although most of the park lies in the Mojave Desert, the south-east section grades into the Sonoran Desert, and elements of the Great Basin Desert are found at higher elevations east of the Granite, Providence and New York mountains.

Superintendent
Dennis Schramm

Deputy Superintendent
Larry Whalon

Chief Ranger
David Ashe

Chief, Resource Interpretation
Linda Slater

Newspaper Editor
Michael Glore

Mailing Address
2701 Barstow Road
Barstow, CA 92311

Web and E-mail
www.nps.gov/moja
For e-mail, click “Contact Us”

Park Headquarters
ph: 760-252-6100
fax: 760-252-6174

The National Park Service cares for the special places saved by the American people so that all may experience our heritage.

Hunting in the National Park System?

“HUNTING IN MOJAVE NATIONAL preserve? Isn’t hunting prohibited in national parklands?” Preserve staff often hear such questions, especially during the fall when hunters are afield pursuing quail, mule deer, bighorn sheep, and other wildlife. In general, National Park Service (NPS) regulations *do* prohibit hunting in national parklands. As of today, however, hunting is authorized in 69 units of the National Park System, including Mojave National Preserve. While this probably seems confusing, some brief history can put it in better perspective.

The first national park, Yellowstone (Idaho, Montana, and Wyoming), was created in 1872. Hunting was restricted but not technically prohibited until 1894 with the passage of the Yellowstone Game Protection Act. At the time, some wildlife, particularly large mammals, faced the possibility of extinction. Populations of buffalo, pronghorn antelope, and elk, which just decades earlier numbered in the millions, had been severely diminished. It had become apparent that in order to save our nation’s wildlife, we would have to protect it. Concerned citizens—primarily hunters, most notably Theodore Roosevelt, Joseph Grinnell, and members of the conservationist organization the Boone and Crockett Club—spearheaded this drive to prohibit the killing of wildlife and protect them from the seemingly relentless onslaught of commercial poachers.

As Congress created more parks such as Yosemite, Glacier, and Mesa Verde, the same language used for Yellowstone was incorporated to protect wildlife there, too. This mandate was carried over into the Organic Act of 1916 which created the mission and administration of the National Park Service.

Conservation-minded hunters and others continued to lead the way in protecting wildlife on public and private lands so that by the mid-1900s wildlife management practices, the implementation of regulated hunting across the United States, and the small scale

“Hunting is authorized in 69 units of the National Park System, including Mojave...”



NPS COLLECTION



NPS COLLECTION

Top to Bottom: Popular game species at Mojave National Preserve include mule deer (*Odocoileus hemionus*), and doves (*Zenaida* sp.).

protection within national parks appeared to be successful: wildlife that seemed in danger of extinction 50 years before were no longer in peril. Some wildlife populations, in fact, were increasing so much in local areas that their growth needed to be controlled. In addition, NPS sites were becoming more numerous and diverse; instead of just parks and monuments, Congress began to establish recreation areas, preserves, battlefields, historic sites, and wild and scenic riverways, among others. Lawmakers recognized that many of these areas had management directions and concerns that differed from more “traditional” parks and monuments. Hunting became allowed at some specific sites as a legitimate, or even essential, activity.

Today, hunting is still prohibited in national parklands unless Congress specifically states otherwise in the unit’s founding or enabling legislation. Where hunting is allowed, however, like in Mojave National Preserve, the NPS continues to provide a unique experience and support for an important American heritage and cultural value.

Neal Darby, Wildlife Biologist

Attention Deer Hunters!

Some mule deer bucks in Mojave National Preserve have been fitted with VHF high-frequency radio collars (see page 4 for more info.). These deer may be legally hunted in accordance with California Department of Fish & Game (CDFG) regulations as part of a valid deer tag for Zone D-17.

If you harvest a collared buck, please return the equipment to the nearest visitor center or ranger station (see below) or to any National Park Service (NPS) park ranger or CDFG officer encountered in the preserve. To arrange pick-up, call 760 252-6100. Returned and reused collars save hundreds of dollars in new equipment.

Essential Information

Dates and Hours of Operation

The preserve is always open. Information centers (see below) maintain regular hours of operation.

Fees and Reservations

There are currently no entrance fees for Mojave National Preserve. See page 6 for information on campground reservations and fees.

Information Centers

Three information centers provide orientation, information, and trip-planning advice. Park rangers are on duty. Western National Parks Association (WNPA) bookstores offer books, maps, and other Mojave-related items.

Kelso Depot Visitor Center

Located 34 miles south of Baker, Calif. on Kelbaker Road. Open daily, 9 a.m.–5 p.m.

Hole-in-the-Wall Information Center

Located near Hole-in-the-Wall Campground. Winter hours (October–April): Wednesday through Sunday, 9 a.m.–4 p.m. Summer hours (May–September): Friday through Sunday, 9 a.m.–4 p.m.

Headquarters Information Center

Located at 2701 Barstow Road, Barstow, Calif. Open Monday through Friday, 8 a.m.–4:30 p.m.

Permits

Permits are required for all organized events, group events (more than 15 individuals or 7 vehicles), and commercial activities such as filming. Fees apply. Proof of insurance and posting of a bond might also be required. Call 760-252-6107 or visit www.nps.gov/moja for more information.

Lodging

There are no motels within Mojave National Preserve. Lodging may be available in Barstow, Nipton, Ludlow, Needles, Baker and Twentynine Palms, Calif., and in Primm and Searchlight, Nev.

Water

Drinking water is available only at Kelso Depot Visitor Center, Hole-in-the-Wall Information Center, Hole-in-the-Wall and Black Canyon campgrounds, Mid-Hills Campground, and the campground at Providence Mountains State Recreation Area (Mitchell Caverns).

Gasoline

There are no gasoline stations within Mojave National Preserve—be sure to fill your tank before entering. Gasoline can be purchased along I–40 at Needles, Fenner and Ludlow, Calif., along I–15 at Baker, Calif., the Cima Road exit, and Primm, Nev., and along U.S. 95 at Searchlight, at the Nev. 163 junction south of Cal–Nev–Ari, Nev.

Pets

Though not allowed inside information centers, pets are welcome elsewhere in the preserve. They must be confined to a leash no longer than six feet in length and never left unattended (including inside vehicles). Dogs used during hunting activities must be under the owner’s control at all times. Pet excrement must be collected and disposed of in garbage receptacles.

Hunting and Firearms

Hunting is permitted in accordance with state regulations. All hunting activities require a license; additional permits and tags may apply. Visit the California Department of Fish & Game website at <http://www.dfg.ca.gov/> for more information.

Target shooting or “plinking” is prohibited. All firearms transported within the preserve must be unloaded, cased, and broken down, except during lawful hunting activities. No shooting is permitted within ½ mile of campgrounds, information centers, Kelso Dunes, and Fort Piute.

Collecting and Vandalism

Disturbing, defacing, or collecting plants, animals, rocks, historic or archeological objects is prohibited. Please leave these resources—all part of our national heritage—as you find them for everyone to enjoy. Metal detectors are not allowed.

Private Property

Private inholdings are found throughout the preserve. Please respect the rights of our neighbors. It is your responsibility to obtain permission before hunting, hiking, or entering private property.

Cattle and Fences

Most grazing within Mojave National Preserve occurs on public land. This land is open to you to explore, but please don’t disturb cattle, fences, or water tanks. Leave gates as you find them.

Bicycles

Bicycles are allowed on dirt and paved roads, but are not allowed on hiking trails unless they are former roads. Bicycles are not allowed in Wilderness Areas or for cross-country travel.

Firewood & Campfires

Wood is scarce in the desert. Cutting or collecting any wood, including downed wood, is prohibited. All firewood, including kindling, must be brought in. Firewood may be available for purchase at Providence Mountains State Recreation Area (Mitchell Caverns) or Fenner, Calif. Campfires are allowed in fire rings in campgrounds and other established sites. To minimize your impact, use a firepan and pack out the ashes. Please do not leave fires smoldering or unattended.



Scenic Cima Road connects I-15 with Cima, Calif., traversing the world’s largest concentration of Joshua trees.

Avenues to Adventure

Mojave National Preserve is vast. At 1.6 million acres, it is the third largest unit of the National Park System in the contiguous United States. While much of Mojave’s wild and historic splendor is available only to those who travel its trails and unmaintained roads, the primary roads of the preserve offer endless opportunities for exploration (see map on page 8).

Kelbaker Road

A 56-mile paved road stretching from I-15 at Baker, Calif. in the north to I-40 east of Ludlow, Calif. in the south, Kelbaker Road winds past cinder cones, lava flows, Kelso Depot, Kelso Dunes, and the Granite Mountains.

Cinder Cones & Lava Flows

No signs or services.
About 14 miles southeast of Baker, Kelbaker Road traverses a 25,600-acre area of lava flows and volcanic cinder cones thought to range in age from 10,000 to 7 million years old. In 1973, the area was designated as Cinder Cones National Natural Landmark due to its scenic beauty and exceptional geological value. Aiken Mine Road (19 miles southeast of Baker, Calif.) offers an interesting side trip through the heart of the area and access to a lava tube. **High clearance and four-wheel drive recommended.**

Kelso Depot Visitor Center

Information, exhibits, orientation film, art gallery, bookstore, restrooms, water, picnic area.
Located 34 miles southeast of Baker, Kelso Depot began operation in 1924 and served as train station, restaurant, and employee housing on the Los Angeles and Salt Lake route of the Union Pacific Railroad. Now Mojave National Preserve’s principal information center and museum, extensive exhibits describe the cultural and natural history of the preserve. Historically furnished rooms offer a glimpse into Kelso’s past.

Kelso Dunes

Self-guiding trail, vault toilets, no water.
About 42 miles southeast of Baker (8 miles south of Kelso Depot), then 3 miles west on a graded dirt road, Kelso Dunes were created by winds carrying sand grains from the dried Soda Lake and Mojave River Sink located to the northwest. The Providence and Granite mountains served as barriers that trapped the blowing sand. Created over the course of 25,000 years, the dunes are nearly 700 feet high and cover a 45-square-mile area. The Kelso Dunes produce a “booming” or “singing” sound when sand with the right moisture content slides down the steep slopes. Try it for yourself—run down a dune slope (but don’t trample vegetation!) to initiate the sound.

Granite Mountains

No signs or services.
An imposing jumble of granite marks the south entrance to the preserve, 50 miles southeast of Baker on Kelbaker Road. Portions of the Granite Mountains lie within the University of California’s Desert Research Center; please respect the signs that mark the boundary. **High clearance and four-wheel drive recommended.**

Clark Mountain

No signs or services.
The only portion of Mojave National Preserve north of I-15, Clark Mountain is also its highest point, at 7,929 feet. A relict white fir grove near the top is one of only three in the Mojave Desert. Check detailed maps or ask a ranger for access information. **High clearance and four-wheel drive recommended.**

Cima Road

About 26 miles east of Baker, Calif., the paved Cima Road connects I-15 with Cima, Calif., 16 miles to the southeast.

Cima Dome & Joshua Tree Forest

Self-guiding trail, no water.
The near-perfect symmetry of Cima Dome rises 1,500 feet above the surrounding desert and provides ideal habitat for the world’s largest concentration of Joshua trees. Although the top of the dome is located west of Cima Road near the Teutonia Peak Trailhead, this unusual geologic feature is best seen from a distance. Try the view looking northwest from Cedar Canyon Road, 2.5 miles east of Kelso Cima Road.

Cedar Canyon & Black Canyon Roads

Mostly unpaved, the 20-mile Cedar Canyon Road connects Kelso Cima Road in the west with Ivanpah Road in the east, paralleling (and sometimes joining) the historic Mojave Road. Black Canyon Road (unpaved north of Hole-in-the-Wall) connects Cedar Canyon Road with Essex Road, 20 miles to the south.

Rock Springs

Wayside exhibits, no services.
A well-known waterhole for early travelers, Rock Springs is located 5.2 miles east of Black Canyon Road on Cedar Canyon Road, then ¼ mile south on a sandy, unmarked road (**four-wheel drive recommended**). Camp Rock Springs, a military redoubt established in 1866, was one of the most isolated and comfortless army posts in the West.

Mid Hills

Campground, trailhead, vault toilets, water. Not recommended for RVs.
About 2 miles west of Black Canyon Road at the north end of Wild Horse Canyon Road, Mid Hills supports pinyon-juniper woodland habitat. The effects of a fire that swept through the area in June 2005 are evident, although several campsites in the popular campground still contain shady stands of pinyon pine and juniper.

Hole-in-the-Wall

Information center, bookstore, campgrounds, picnic area, trailhead, restroom, water, telephone.
Just north of the junction of Black Canyon and the south end of Wild Horse Canyon Roads, rhyolite cliffs riddled with holes and hollows are the backdrop for Hole-in-the-Wall.

Piute Spring

About 7.4 miles west of U.S. 95 on the unmarked and unpaved Mojave Road, then 3.1 miles west on an extremely rough unmarked dirt road. **High clearance and four-wheel drive recommended.**

Fort Piute and Piute Spring

Trails, wayside exhibits, no signs or services.
Willows, cottonwoods, and rushes thrive along a half-mile section of Piute Creek. Fort Piute (still visible) was one in a string of military outposts built along the Mojave Road. Please don’t climb on the foundations or remove anything.

Dirt Road Driving

Prepare Your Vehicle

Ensure that your vehicle is in good condition: check tires, oil, and gas gauge.

For emergencies, carry tools, tire jack, towrope, extra water, and fluids for your vehicle.

Know the Rules of the Road

All vehicles operating within Mojave National Preserve must be street-legal in accordance with California DMV requirements, including current registration and tags, lights and turn signals, and valid insurance. California “Green Sticker” and “Red Sticker” programs are not recognized within the preserve.

Off-pavement travel is allowed only on existing, open dirt roads. Do not travel cross-country or create new routes. This rule is strictly enforced; violators will receive citations. Driving in washes is not permitted. Watch for and respect Wilderness Boundary signs; motorized vehicles and bicycles are not allowed in designated Wilderness Areas.

Check Road Conditions

Road conditions vary widely. Dirt roads might be rough, sandy, or muddy, rendering them impassable and the unprepared motorist could be trapped many miles from help. Watch for cattle, burros, and other wildlife on roadways.

Not all roads are shown on all maps; traces and illegal shortcuts add to the confusion. Carry a good map, and ask a park ranger for current road conditions.

Zzyzx Road

Six miles southwest of Baker on I-15, Zzyzx Road leads 5 miles south into the preserve along the western shore of Soda Lake (dry).

Zzyzx/Soda Springs

Self-guiding trail, wayside exhibits, vault toilets, non-potable water, picnic area.
Historically known as Soda Springs and later renamed Zzyzx (pronounced Zye-zix), this oasis is home to the California State University Desert Studies Center. The buildings and pond were developed in the 1940s by Curtis Springer, who operated a health resort at the site. Zzyzx is open to the public—stroll around Lake Tuendae and along the shore of Soda Dry Lake. Please do not disturb participants when classes are in session.

Nipton, Ivanpah & Lanfair Roads

Eleven miles south of Primm, Nev., Nipton Road begins at I-15 and passes through Nipton, Calif., 11 miles east. Ivanpah Road (only the 10 northernmost miles paved) heads southeast of Nipton Road, through the Ivanpah and Lanfair valleys, eventually connecting with the paved Lanfair Road and the Fenner Valley. Together stretching 46 miles, Ivanpah and Lanfair Roads connect the northern preserve boundary (bordering Nipton Road) with the southern near Goffs, Calif.

Hotel Nipton

Privately-operated hotel, store, & campground; for info. call 760 856-2335 or email at stay@nipton.com.
Built in 1910, this charming hotel reflects the railroad, ranching, and mining history of the small community at Nipton.

Caruthers Canyon

Primitive camping, hiking, no signs or services.
About 5.5 miles west of Ivanpah Road on New York Mountains Road, then 2.7 miles north on an unsigned road, Caruthers Canyon is located in the rugged New York Mountains. Surrounded by mountains rising over 7,500 feet, a botanical “island” of chaparral plants remains from wetter times of the past. **High clearance and four-wheel drive recommended.**

Sand & Mud Driving Tips

- Be sure to carry plenty of drinking water and emergency supplies.

- Engage four-wheel drive before entering deep sand or mud.

- Don’t gun the engine—this will spin the tires, dig you in deeper, and could bury your vehicle to the frame. Smooth, easy power is better than too much power; use low gearing and just enough throttle to maintain forward movement.

- If you detect a loss of traction, turn the steering wheel rapidly from side-to-side—this might help to generate traction.

- If your vehicle gets stuck, place solid materials (such as floor mats) under the tires to provide traction.

- If you’re really stuck, it’s best to stay with your vehicle. A stationary, stranded vehicle is much easier to locate than a person traveling on foot. Avoid strenuous activity during the heat of the day; stay in the shade of your vehicle.

Lanfair Valley

No signs or services.
South of the New York Mountains along Ivanpah and Lanfair roads, this high valley shelters an impressive Joshua tree forest and was an early ranching and homesteading center. From 1893 until 1923, the Nevada Southern Railway ran up the valley from Goffs, providing services to homesteaders and ranchers in the valley and to miners in the mountains beyond. While little evidence remains of homesteads that once dotted the valley, tracts of private property still exist. Please respect the rights of landowners.



Nature and Science

Protect Desert Tortoises

The threatened desert tortoise is a marvel of desert adaptation. Its continued survival, however, is largely dependent on responsible human behavior.

Admire from Afar

Do not harass or approach a tortoise too closely. When no water is available, tortoises absorb water stored in their bladders. If frightened, they might release this vital water supply.

Mindful Motoring

Stay on established roads. Vehicles can crush burrows, killing tortoises and eggs.

Check beneath your vehicle before driving away. On hot days, tortoises enjoy the shade that cars provide.

Observe posted speed limits and be especially watchful during and after rainstorms. Tortoises often enter roadways to drink from puddles.

Pet Smarts

Do not release captive tortoises. They might carry diseases that can be transmitted to wild tortoises. Instead, turn them over to a licensed tortoise-rescue center. For information, call 760-252-6101.

Mojave National Preserve protects critical habitat for the recovery of the threatened desert tortoise (*Gopherus agassizii*).

Mojave’s Mule Deer: Emerging Patterns

JANUARY 2008 MARKED THE BEGINNING OF A 10 YEAR STUDY on mule deer population ecology in Mojave National Preserve. Eighteen deer—16 females and two males—were trapped and fitted with VHF high-frequency radio collars. Each transmitter sends out a pulsating, “beep”-like signal of unique frequency. Using a special receiver, researchers from Mojave National Preserve and graduate students from the University of Nevada-Reno monitor each deer, determining the animal’s location at any time.

With this information, researchers will be able to identify habitat areas of particular importance to mule deer, including foraging areas, fawning grounds, and breeding ranges. Scientists will also examine the quality of deer habitat in Mojave National Preserve: water sources will be experimentally manipulated to determine whether adequate water is currently available or if more needs to be provided; and vegetation will be measured in order to better characterize the amount of important nutrients available to deer throughout the year. Ultimately, preserve managers will have much more information and guidance when making decisions that might affect Mojave’s deer.

Already, the data is yielding some interesting information that suggests adequate forage. Mule deer in Mojave National Preserve are big—similar, in fact, to northern deer populations. On average, does weighed 126 pounds, though some weighed almost 150 pounds; bucks weighed up to 176 pounds. Overall body conditions were good, with some deer having almost two inches of fat along their back. Pregnancy rate is high, which appears to be carrying over to high birth



Researchers release a mule deer doe after being outfitted with identifying ear tag and VHF high-frequency radio collar.

rates. While data concerning distribution is minimal at present, it appears as though the total area that each deer lives on is about 6,300 acres, and that some deer have preferred fawning grounds. It should be noted, however, that the project is just beginning, and that some of the patterns that have already emerged could change dramatically as researchers continue to monitor and track mule deer.

Neal Darby, Wildlife Biologist

Deer mouse (*Peromyscus* sp.), a carrier of hantavirus.



Health Advisory

Hantavirus pulmonary syndrome is a respiratory disease associated with deer mice and other rodents. The disease is extremely rare, but very serious: there is no cure, and nearly half of known patients have died.

The disease spreads to people when rodent urine, droppings, or nesting materials are stirred-up. You may be infected by breathing in the virus, touching your mouth or nose after handling contaminated materials, or from a rodent bite. To avoid exposure to hantavirus, use extreme caution when exploring abandoned buildings or selecting a campsite. If you see droppings or nests, stay away.

Mojave Goes Green

The quality of the global environment is one of the biggest issues facing us all in the 21st century. So, in preparation for its 100th anniversary in 2016, the National Park Service (NPS) has stressed Environmental Leadership as one of five major themes of its Centennial Initiative. To be sure, national parks are ideal locations for showcasing sustainable environmental practices; the water, wildlife, soils, air, and scenery protected in our national parks benefit not only park visitors, but residents in nearby communities and even people throughout the world. Mojave National Preserve, too, is going green—working to fulfill a commitment to be a leader in environmental stewardship for ourselves, our children, and generations to come.

Solar Power

With 320 days of sunshine per year, Mojave National Preserve is an ideal location for solar power installations. Buildings containing administrative offices, workshops, public facilities, and even employee quarters have been newly built or retrofitted to capture and efficiently use energy from the sun. Later in 2008, Mojave National Preserve’s partner, California State University at Fullerton, will double the size of the 9.6-kW, off-grid solar system at the Desert Studies Center in Zzyzx. The new system will provide 95% of the required energy needs for the center and eliminate the last remaining diesel electric generator within the preserve.



Most facilities in Mojave National Preserve are powered exclusively by solar systems, such as this one at OX Ranch in the Lanfair Valley.

Sustainable Housing

In 2007, new housing for NPS staff and volunteers was completed in the gateway community of Baker, Calif. Constructed using sustainable products and practices, the fully accessible homes feature interiors incorporating all-fluorescent and natural lighting using solar tubes; water-saving plumbing fixtures; appliances and HVAC with maximum efficiency ratings up to 95%; drought-resistant landscaping with water-conserving drip-irrigation systems; and roof-mounted 2.4-kW reverse meter solar systems.

Recycling, Etc.

In summer 2008, Mojave implemented a preserve-wide recycling program for plastic, glass, aluminum and cardboard. Located at information centers and campgrounds, the contents of the bins are collected and transported to recycling centers in Barstow, Calif. Convenient pick-up points for recyclable batteries have also been established for NPS staff.

Covering 1.6 million acres and with few paved roads, Mojave National Preserve presents unique challenges, especially to maintenance



Visitors may now recycle plastic, glass, and aluminum at information centers and campgrounds.

staff. Long-distance driving comes with the job. Nonetheless, in an effort to reduce their carbon footprint, maintenance staff will be replacing all hydraulic fluids in equipment with bio-based fluids and have initiated use of Global Electric Motorcars (GEM): silent, zero-emissions transportation. Still, not content with taking just a few major steps towards sustainability, maintenance staff made hundreds of additional, smaller ones: low-flow water saving devices installed in almost every housing unit, and replacement of all incandescent bulbs in the preserve with energy efficient fluorescent lighting.

Continued on next page...



Faces and Places

Desert Fine Art Gallery

The tradition of close ties between the railroads, art, and national parks continues with *Mindful Presence*, a photography exhibit at the Desert Fine Art Gallery in Kelso Depot Visitor Center.

Often perceived as barren or unproductive, deserts reveal their beauty and bounty to those who immerse themselves in the landscape. In *Mindful Presence*, Hamilton Moore of JumpingLion Photography captures qualities of the Mojave which are within the purview of our senses, but which we too infrequently notice: the glint of water seen from a distant hilltop, delicate animal tracks deposited among shifting sands, or ancient evidence of previous desert dwellers.

Mindful Presence runs from August 23rd to November 16th. Limited edition prints from the exhibition will be available for purchase at the Western National Parks Association (WNPA) bookstore inside the Kelso Depot Visitor Center. Proceeds from print sales will fund additional projects aimed at promoting understanding and enjoyment of Mojave National Preserve.



“Certainty,” by Hamilton Moore

Mojave Goes Green

(continued from page 4)

Environmental Leadership

In February 2008, Mojave National Preserve hosted representatives from around the National Park Service in a two-day workshop focused on environmental or “green” procurement opportunities and requirements. Participants studied ways that national parks can reduce their carbon impacts on global warming. A guest speaker from Southern California Edison (SCE) discussed energy efficiency, lighting, and incentives available to the federal government.

“For its innovative and far-reaching environmental work,” according to U.S. Environmental Protection Agency (EPA) Regional Administrator Wayne Nastri, Mojave National Preserve received an EPA Environmental Award in April 2008. While awards and accolades are encouraging, Mojave, like other units throughout the National Park System, recognizes that environmental stewardship and leadership require continued learning and practice. And so, in addition to SCE’s Direct Install Program, Mojave National Preserve will be participating in an energy audit in coming months. With the results of the audit, preserve managers will identify even more ways to save energy and reduce carbon emissions.

National Park Service

A water tank at historic OX Ranch, once part of the Rock Springs Land & Cattle Company, whose holdings in the early 1900s included most of the eastern Mojave Desert.

Park Ranger’s Pick: Rana Knighten on Eagle Rocks



A seasonal park ranger, Rana Knighten recently moved to the Mojave Desert from Florida.

RISING ABOVE THE MID-HILLS AREA, Eagle Rocks is a scattered jumble of granite boulders standing in marked contrast to the gently rolling surroundings. Despite its accessible location, it has the feeling of being miles away from everything.

At the beginning of the route, the landscape is dominated by sagebrush scrub interspersed with juniper and pinyon pine—uncharacteristic of most people’s vision of the Mojave Desert. Indeed, at about 5,600 feet in elevation, the area provides a slightly cooler and wetter respite from the extremes encountered at lower elevations. Pinyon was an important food source for the Chemehuevi Paiute and Ancestral Mohave Indians who once inhabited this region. The fat-rich seeds, commonly known by the Spanish *piñon* or Italian *pignoli*, are also a critical resource for small mammals and one bird species in particular: the pinyon jay. The jays and pines have a complex relationship in which each allows the other to thrive. Pinyon jays are seed hoarders, gathering pine nuts and caching them for later, leaner times. Later in the year, male jays unearth their small mounds of seeds to entice would-be mates. Big, heavy, and not easily carried by wind like most conifers, pinyon seeds rely on jays to transport them to new locations to grow.

During a recent visit, the jays sound angry as I hike past, calling out at me with raucous voices. Jackrabbits, cottontails, and ground squirrels, too, bound away as I draw near. After a short walk, the shade and sounds of the green forest give way to an open valley scattered with the blackened skeletons of pines. In 2005, the Hackberry Fire destroyed all but a few small pockets of precious forest in this area. But evidence of this land coming back to life is everywhere: the ground is covered with a variety of desert shrubs and yucca, and clumps of wildflowers line either side of the wash, the elevation allowing them to thrive here even in the hottest months of the year. Wildlife abounds: butterflies, moths and a variety of bees fly from flower to flower. Side-blotched and leopard lizards scurry across my path as I descend down the wash.

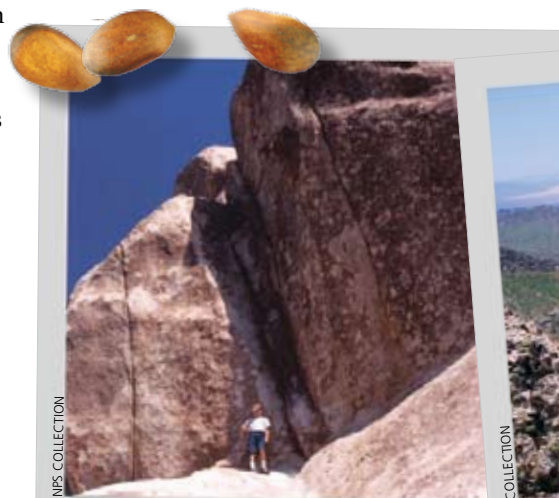
Rounding a hill, the gigantic granite piles suddenly loom up into view, towering several

Getting There: Eagle Rocks

About ¾ mile west of Mid-Hills Campground on Wild Horse Canyon Road, turn right onto an unmarked dirt road (**high clearance vehicle recommended**). Drive another 0.2 miles, bearing right at a junction, and park at a wide spot in the road before a wilderness marker. Beyond the marker, continue on foot along the sandy, wash-like route towards Eagle Rocks, looming to the northwest.

hundred feet above the surrounding landscape. I hike toward the base of the car- and house-sized boulders and start exploring. I could easily spend all day here, climbing over the rocks as they slowly reveal their secret nooks and crannies. Wildflowers and cacti are tucked neatly into the crevices and the random pilings create countless small caves, which evidence their use by animals. There are dozens of passages through and over the rocks—I choose one of the easiest and start up. Eventually, however, I decide I can go no further. The rocks here are old and eroded; with one handhold, an entire sheet of rock comes away with my hand. Instead, I find a nice-looking place to rest. You wouldn’t think that rock could be this comfortable, but the centuries of wind and rain have carved-out a perfect me-shaped depression to lie in. Looking up, I see red-tailed hawks soaring overhead. A couple of ravens investigate me, circling around my pack laying several feet away.

The silence here is almost perfect, broken only by gusts of wind. From my vantage point, the wash continues down through hills, passing other granite outcroppings and eventually leading down to what looks like a lovely green valley many miles away. I’ve never made it that far. Maybe someday I will. But for now, I think I’ll just lie here and enjoy the solitude of the rocks.



Big Rocks!



Bigger Views!

The Mojave Road

This country, as a whole, seemed a vast volcanic desert—of mountains, canyons, and mesas—and what it was ever made for, except to excite wonder and astonishment, is a mystery to the passing traveler... Water was found only at distances of ten and twenty miles apart...

-J.F. Rusling describing his 1866 trip on the Mojave Road in *Across America*

Originally a foot trail used by Mohave and other people of the Colorado River basin to transport goods from the southwest for trade with coastal tribes, the Mojave Road later served the cause of westward expansion: military forts were established along the route to protect key water sources and provide assistance for travelers. Today it is a popular four-wheel drive road.

The Mojave Road is an east-west route that enters the preserve near Piute Spring on the eastern boundary and at Soda Dry Lake near Zzyzx on the west. Some sections are rough and sandy; four-wheel drive is recommended. Much of the road might become slick, muddy, and impassable after rains. Be sure to inquire about road conditions, especially if you plan to cross Soda Lake.

The Mojave Road Guide by Dennis G. Casebier provides in-depth history and mile-by-mile descriptions of the route. It is available for purchase at preserve information centers.

Mojave Road Diptych (top to bottom): Fort Piute; Historical marker at junction with Kelso Cima Road.





Camping & Backcountry Travel

Backcountry Guidelines & Regulations

Backcountry camping—backpacking, roadside camping, and horsepacking—requires careful planning in order to ensure a safe and rewarding experience. Visitors should adhere to National Park Service regulations and are further encouraged to follow Leave No Trace guidelines to minimize their impact on the fragile desert environment.

Leave No Trace information is rooted in scientific studies and common sense. The message is framed under seven Leave No Trace Principles presented below with accompanying regulations and guidelines specific to Mojave National Preserve:

1. Plan Ahead and Prepare

- There is no permit or registration system for backcountry camping at Mojave National Preserve; be sure to notify others of your travel itinerary.
- Few established trails exist; carry a good map and familiarize yourself with desert travel and survival skills before beginning your trip.

2. Travel and Camp on Durable Surfaces

- Reuse existing campsites (required for roadside camping—see below).
- Do not make camp in a dry wash—flash floods develop quickly in the desert.
- Camping is limited to a maximum of 14 consecutive days per visit/stay and 30 total days per year.
- Campsites must be more than 200 yards from any water source.
- Camping is not permitted: within 1/4 mile of any paved road; within 1/2 mile of Fort Piute or Kelso Depot; within 1 mile north (i.e., the crest of the dunes) or 1/4 mile south of the Kelso Dunes access road.

3. Dispose of Waste Properly

- Store all food and garbage in a manner that will prevent access by wildlife. Carry plastic bags and pack out all trash.
- Bury human waste in catholes 6-8 inches deep, at least 200 feet from water, camp, and trails. Pack out all toilet paper and hygiene products.

4. Leave What You Find

- Disturbing, defacing, or collecting plants, animals, rocks, and historic or archeological objects is prohibited. As part of our national heritage, these resources should be left as they are found for all to enjoy. Metal detectors are not allowed.

5. Minimize Campfire Impacts

- Campfires are allowed in established fire rings only, or with use of a portable firepan (be sure to pack out ashes). Do not leave fires smoldering or unattended.
- Cutting or collecting any wood, including downed wood, is prohibited. All firewood must be brought into the preserve.

6. Respect Wildlife

7. Be Considerate of Other Visitors

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Friends and family enjoy spectacular scenery at the Kelso Dunes Mine roadside camping area.

Campgrounds

Hole-in-the-Wall Campground

Facilities: vault toilets, trash receptacles, potable water, fire rings, picnic tables, dump station; no utility hookups.

Fees: \$12 per site per night, \$6 for America the Beautiful Senior/Access Pass holders.

Reservations: not accepted; campsites available on a first-come, first-served basis. At 4,400 feet in elevation, Hole-in-the-Wall Campground is surrounded by sculptured volcanic rock walls and makes a great basecamp for hikers (see p.7) and for exploring nearby Mitchell Caverns in the Providence Mountains State Recreation Area. Thirty-five campsites accommodate RVs and tents; two walk-in sites are also available.

Mid Hills Campground

Facilities: vault toilets, trash receptacles, potable water, fire rings, picnic tables; no dump station or utility hookups.

Fees: \$12 per site per night, \$6 for America the Beautiful Senior/Access Pass holders.

Reservations: not accepted; campsites available on a first-come, first-served basis. The Hackberry Fire swept through the Mid Hills area in June 2005, burning much of the vegetation. About half of the 26 campsites were left unharmed, however—they remain surrounded by pinyon pine and juniper trees. At 5,600 feet in elevation, Mid Hills is much cooler than the desert floor below. The access road is unpaved and is not recommended for motorhomes or trailers.

Black Canyon Equestrian & Group Campground

Facilities: corrals, vault toilets, trash receptacles, potable water, fire ring, grill, picnic shelter with tables.

Fees: \$25 per group per night.

Reservations: required; call 760 928-2572 or 760 252-6104

Located across the road from Hole-in-the-Wall Information Center. Horses and riders are welcome at Mojave National Preserve! Permits required for large groups (see p.2 for permit information).

Nearby Camping Areas

Providence Mountains State Recreation Area (Mitchell Caverns)

16 miles north of I-40 on Essex Road, has six campsites with tables and fire rings available on a first-come basis for \$12 per night. See page 7 for more information.

Afton Canyon

25 miles southwest of Baker on I-15, has a BLM campground with tables and fire rings for \$6 per night.

Commercial camping is also available at Baker, Barstow, Needles, and Nipton, Calif.

Roadside Camping

Roadside vehicle camping is permitted in areas that have been traditionally used for this purpose. Camping tramples vegetation and disturbs soils. By reusing existing sites, you help protect the desert from further damage. Many roadside camping sites cannot accommodate multiple vehicles; please don't enlarge sites. Do not camp along paved roads or in day-use areas, and stay at least 200 yards from all water sources.

The National Park Service encourages roadside campers to use the following, selected sites:

Near Kelbaker Road: Rainy Day Mine Site

15.2 miles southeast of Baker on Kelbaker Road, then 0.3 miles northeast on the unsigned and very sandy road to the Rainy Day Mine. Four-wheel drive recommended; no RVs.

Granite Pass

6.1 miles north of I-40 on Kelbaker Road, just north of Granite Pass, then west on one of several access roads. Campsites are located just north of the granite spires. High clearance vehicle recommended; no RVs.

Kelso Dunes Mine

4 miles west of Kelbaker Road on the unpaved Kelso Dunes Road. One campsite is located south of the road, ¼ mile past the marked trailhead. Several others are available ¾ mile beyond, near a clump of trees. Except at these sites, roadside camping is prohibited along Kelso Dunes Road (including at the trailhead).

Near Cima Road: Sunrise Rock

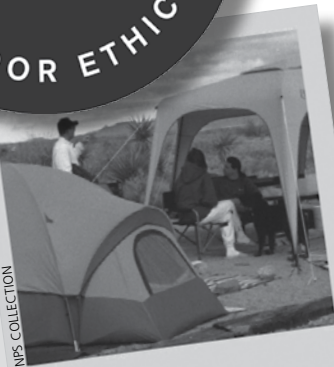
12 miles south of I-15 on the east side of Cima Road. Trailhead for Teutonia Peak Trail is nearby on the opposite side of Cima Road.

Near Black Canyon Road: Black Canyon Road

5.2 miles south of Hole-in-the-Wall Information Center on the east side of Black Canyon Road, near rock piles.

Near Ivanpah and Cedar Canyon Roads: Caruthers Canyon

5.5 miles west of Ivanpah Road on New York Mountains Road, then 1.5 to 2.7 miles north to campsites. High clearance and four-wheel drive recommended; no RVs.

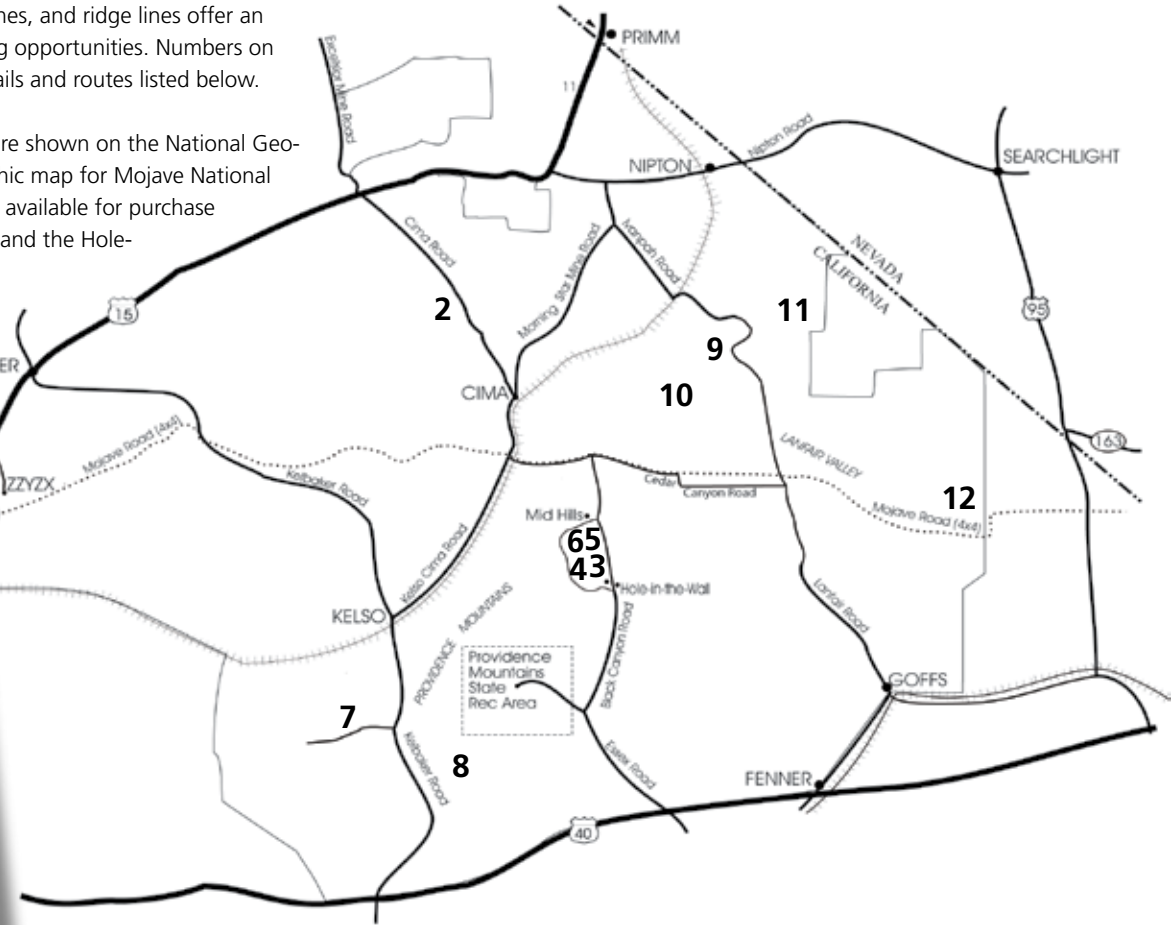
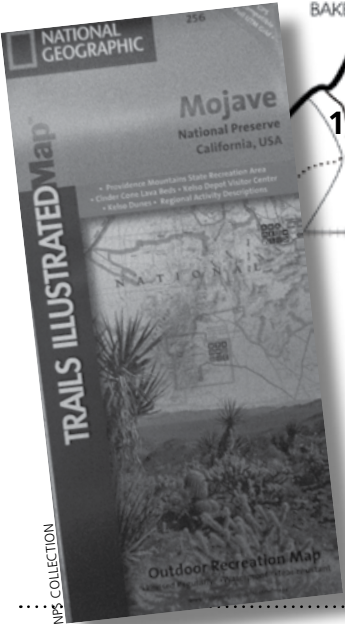


Hiking

Hikers at Mojave National Preserve can enjoy a variety of challenges, with sweeping views, solitude, and nearly 800,000 acres of designated Wilderness.

Although there are few established hiking trails in Mojave National Preserve, abandoned dirt roads, washes, and ridge lines offer an abundance of cross-country hiking opportunities. Numbers on map show general locations of trails and routes listed below.

All trails and routes listed below are shown on the National Geographic Trails Illustrated topographic map for Mojave National Preserve. This and other maps are available for purchase at the Kelso Depot Visitor Center and the Hole-in-the-Wall Information Center.



Developed Trails

1) Lake Tuendae Nature Trail

Trailhead: Zzyzx parking area, 5 miles south of I-15 on Zzyzx Road.
Enjoy an easy, self-guided, ¼-mile stroll around Lake Tuendae. Wayside exhibits along the trail reveal the rich cultural and natural history of this oasis on the preserve’s western boundary.

2) Teutonia Peak Trail

Trailhead: 12 miles south of I-15, or 5 miles north of Cima, Calif. on Cima Road.
Explore the world’s densest Joshua tree forest en route to a rocky peak with expansive views of Cima Dome and beyond. 4 miles round-trip.

3) Hole-in-the-Wall Nature Trail

Trailhead: Hole-in-the-Wall Information Center and Campground, 20 miles north of I-40 on Essex and Black Canyon roads.
Learn to identify desert plants on this easy, ½-mile round-trip hike. Trailheads at Hole-in-the-Wall Information Center and Campground.

4) Rings Loop Trail

Trailhead: Hole-in-the-Wall Information Center parking area, 20 miles north of I-40 on Essex and Black Canyon roads.
Discover how Hole-in-the-Wall got its name as you ascend through narrow Banshee Canyon with the help of metal rings mounted in the rock. The 1½-mile round-trip hike connects to the Mid Hills to Hole-in-the-Wall Trail (see below).

5) Mid Hills to Hole-in-the-Wall Trail

Trailheads: Entrance to Mid Hills Campground, and about 1 mile west of Black Canyon Road on the south end of Wild Horse Canyon Road.
Hike 8 miles, one-way, through a maze of washes decorated with barrel and cholla cacti, then through the Hackberry Fire burned area. Total elevation gain is 1,200 feet. Watch care-

6) Barber Peak Loop Trail

Trailhead: Parking area for walk-in tent sites at Hole-in-the-Wall Campground.
The preserve’s newest trail, this 6-mile loop encircles Barber Peak just west of Hole-in-the-Wall Campground, passes the Opalite Cliffs, and returns to Hole-in-the-Wall via Banshee Canyon.

Recommended Routes

Warning: the routes described below are not established trails; trailheads might be unidentifiable or nonexistent. Check a detailed map and consult a park ranger for route information. Maps and guidebooks are available at information centers.

7) Kelso Dunes

Start: 3 miles west of Kelbaker Road on the well-graded, but unpaved Kelso Dunes Road.
Hikers at sunrise and sunset are treated to both cooler temperatures and the rose-colored glow of the dunes. The roughly 3-mile round-trip hike might take several hours as you slog through the sand, then slide down the slopes.

8) Quail Basin

Start: 12.5 miles north of I-40 on Kelbaker Road, then 1 mile east on an unmarked dirt road. Park at junction with closed dirt road heading south. High clearance and four-wheel drive recommended.
Follow the route to the south to a road that loops around a small valley. After walking the loop, return via the same route. The 6.5-mile round-trip route leads past jumbled rocks into a small valley of Mojave yucca and juniper surrounded by granite outcroppings.

9) Keystone Canyon

Start: 18 miles south of Nipton Road on Ivanpah Road, then 2.5 miles west on an unmarked

dirt road. Bear left at the first fork, right at the second, then continue to a parking area. Four-wheel drive recommended.
Hike the deteriorating closed road into Keystone Canyon, ascending the New York Mountains. Continue cross-country to the top of the ridge for spectacular views. Hike is 3 miles one-way.

10) Caruthers Canyon

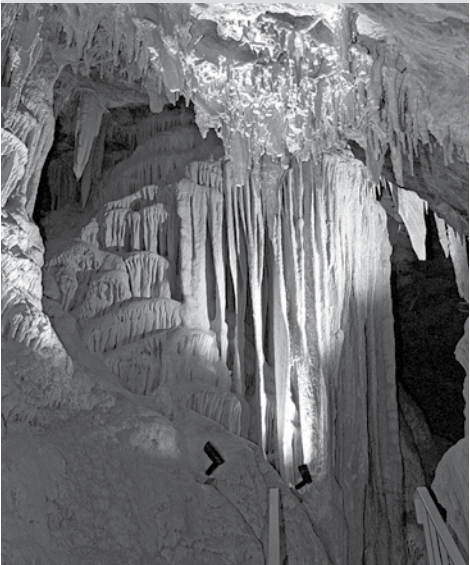
Start: Primitive campsites in Caruthers Canyon, 5.5 miles west of Ivanpah Road on New York Mountains Road, then 2.7 miles north on unsigned road. High clearance and four-wheel drive recommended.
Hike 3 miles one-way through a rocky basin to an abandoned gold-mining area. Do not enter mine shafts or climb on abandoned structures; they are unstable and extremely dangerous.

11) Castle Peaks Corridor

Start: 4.9 miles east of Ivanpah Road on signed Hart Mine Road; left at fork, then 0.9 miles, left at fork, then 3.4 miles, crossing an earthen berm; left at fork, then 1 mile more to where road ends. High clearance and four-wheel drive recommended.
For excellent views of the Castle Peak spires, walk 4 miles one-way up the closed road to the ridgetop and beyond into a small canyon.

12) Piute Creek

Start: 9.5 miles east of the junction of Lanfair Valley and Cedar Canyon roads on a dirt utility road, then 0.5 miles north. High clearance and four-wheel drive recommended.
Hike 6.5 miles round-trip through colorful Piute Gorge and explore the ruins of Fort Piute, built and manned in the 1860s to protect mail and travelers on the Mojave Road. A perennial stream near the fort, rare in the Mojave, supports riparian plants and animals. Return to your vehicle via an unused trace of the Mojave Road.



Mitchell Caverns: A State Park within a National Preserve

Stalactites, stalagmites, helictites, shields, and draperies are but a few of the formations that decorate the interior of Mitchell Caverns at Providence Mountains State Recreation Area. Located just south of Hole-in-the-Wall on Essex Road, this 5,900-acre state park offers cave tours, camping, and hiking in the spectacular Providence Mountains.

Tours

Guided tours of Mitchell Caverns require a 1½-mile walk and last about 1½ hours. The temperature inside the cave is a comfortable 65°F, so dress accordingly and wear sturdy shoes. Tour schedules are as follows:

Winter (Labor Day-Memorial Day)

Weekdays: 1:30 p.m.
Weekends: 10 a.m., 1:30 p.m., & 3 p.m.

Summer (Memorial Day-Labor Day)

Daily: 1:30 p.m.

Fees are \$5 for adults, \$2 for children under 16; children under six years old get in free. Tours are limited to 25 people. Reservations (not accepted for individuals or small groups) are required for groups of 10 or more and can be made by calling at least three weeks in advance.

Camping and Hiking

At 4,300 feet in elevation, the campground offers superb views of the surrounding desert. Six campsites with tables and fire rings are available on a first-come, first-served basis for \$12 per night. Water and flush toilets are provided.

Three short trails—the Mary Beale Nature Trail (0.5 miles round-trip), Nina Mora trail (0.5 miles round-trip), and Crystal Spring Trail (2 miles round-trip)—offer an introduction to the area’s history, geology, and flora while providing outstanding views. Cross-country hikers can reach the peaks of the Providence Mountains. Groups planning to hike cross-country require a free permit from the visitor center.

For reservations and information, call 760-928-2586.

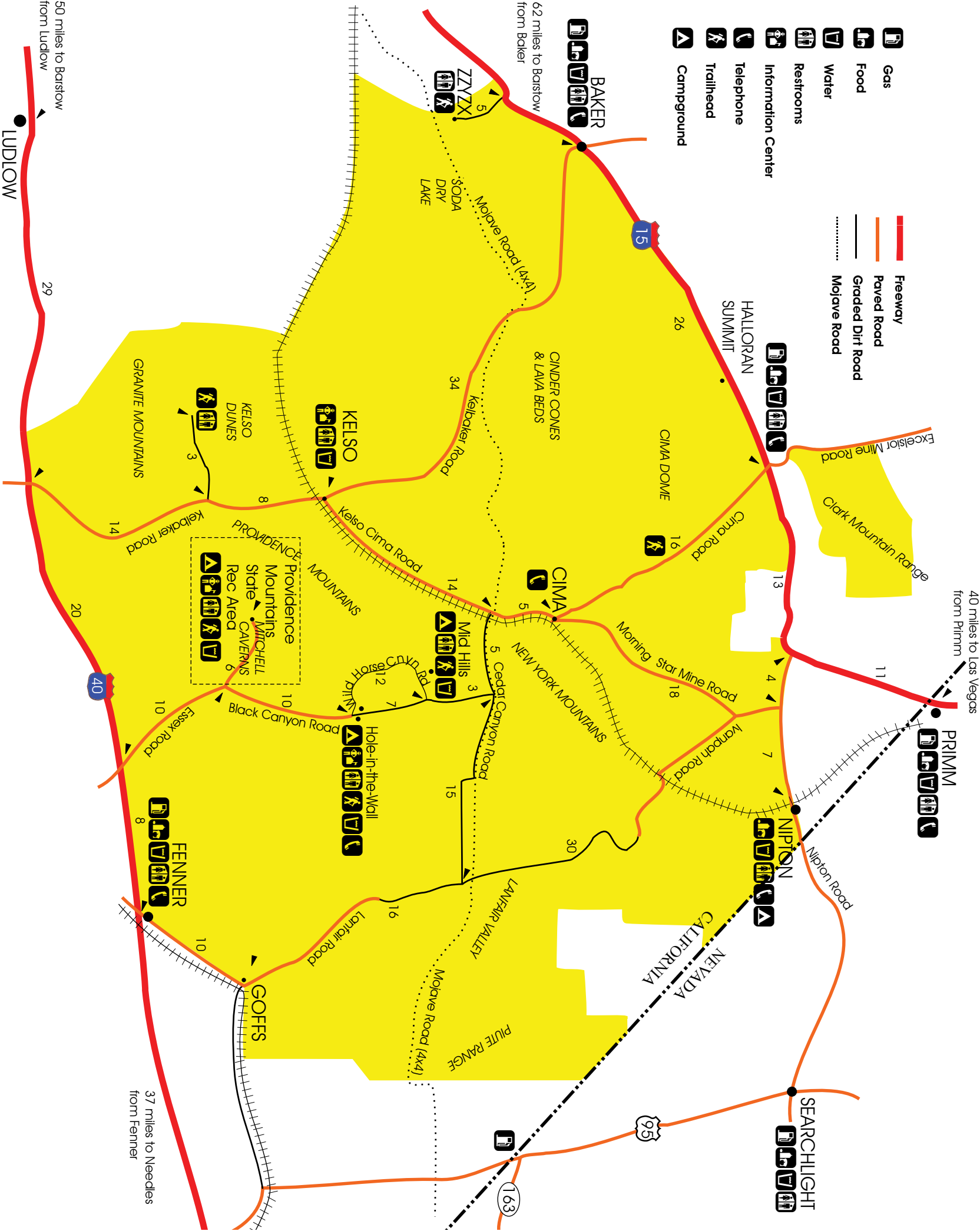
Mojave



National Park Service
U.S. Department of the Interior
Mojave National Preserve

- Gas
- Food
- Water
- Restrooms
- Information Center
- Telephone
- Trailhead
- Campground

- Freeway
- Paved Road
- Graded Dirt Road
- Mojave Road



Telephone Directory
Emergency 911

Federal Interagency Communications Center
San Bernardino County Sheriff - Baker
San Bernardino County Sheriff - Needles

909 383-5651
760 733-4448
760 326-9200

Mojave National Preserve

Barstow Headquarters Office
Kelso Depot Visitor Center
Hole-in-the-Wall Fire Center
Hole-in-the-Wall Information Center

760 252-6100
760 252-6108
760 928-2573
760 252-6104 or
760 928-2572

Nearby Parklands

Anza Borrego Desert State Park
Calico Ghost Town
Death Valley National Park
Joshua Tree National Park
Lake Mead National Recreation Area
Providence Mountains State Recreation Area

760 767-4205
760 254-2122
760 786-2331
760 367-5500
702 293-8990
760 928-2586

Website Directory

National Park Service

Mojave National Preserve
Death Valley National Park
Joshua Tree National Park
Lake Mead National Recreation Area

www.nps.gov
www.nps.gov/moja
www.nps.gov/deva
www.nps.gov/jotr
www.nps.gov/lame

Providence Mountains State Recreation Area
Western National Parks Association (bookstore)
CSU Desert Studies Center (Zzyzx)
Bureau of Land Management
Sweeney Granite Mtns. Desert Research Ctr.
DesertUSA wildflower reports
Desert Tortoise data and information
Desert Discovery Center
Wilderness Information
California Desert
Leave No Trace
US Federal government jobs

http://www.parks.ca.gov/?page_id=615
www.wnpsa.org
<http://biology.fullerton.edu/dsc/>
www.blm.gov
<http://nrs.ucop.edu/Sweeney-Granite.htm>
www.desertusa.com/wildflor/wildupdates
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